

Applicant:

Warren and Swanson
Application No.: 09/389,537
Filed: September 2, 1999
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PATENT
DIVER1240-3

Please enter the following amended paragraphs into the specification on page 27, in place of the paragraph beginning with "Aquiifex aspartate":

Aquiifex aspartate aminotransferase

5'-CCGAGAATTCATTAAAGAGGAGAAATTA~~ACT~~ATGAGAAAAGGACTTGCAAGT
(SEQ ID NO: 37)

3'-CGGAGGATCCTTAGATCTCTTCAAGGGCTTT (SEQ ID NO: 38)

Closest to *Bacillus subtilis* (Sorkin, A.V., Azevedo, V., Zumstein, E., Galleron, N., Ehrlich, S.D. and Serror, P. Determination and analysis of the nucleotide sequence of the *Bacillus subtilis* chromosome region between serA and kdg loci cloned in yeast artificial chromosome Unpublished (1995). Percent similarity: 71.611 Percent identity: 52.685

B. IN THE CLAIMS:

Please enter the following rewritten claims as follows:

17. (Amended) An isolated enzyme comprising an amino acid sequence which is at least 70% identical to any one of SEQ ID NOS: 25-32 when aligned using the BLASTN program of the National Center for Biotechnology Information, wherein the enzyme has transaminase or aminotransferase activity.
18. (Amended) A method for transferring an amino group from an amino acid to an α -keto acid comprising:
contacting an amino acid in the presence of an α -keto acid with an isolated enzyme selected from the group consisting of an enzyme encoded by an amino acid sequence which is at least 70% identical to any one of SEQ ID NOS: 25-32 when aligned using the BLASTN program of the National Center for Biotechnology Information wherein the enzyme has transaminase or aminotransferase activity; and
thereby transferring an amino group from the amino acid to the α -keto acid.

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19. (Amended) An enzyme of claim 17, wherein the amino acid sequence of the isolated enzyme is at least 80% identical.
20. (Amended) An enzyme of claim 17, wherein the amino acid sequence of the isolated enzyme is at least 90% identical.
21. (Amended) An enzyme of claim 17, wherein the amino acid sequence of the isolated enzyme is at least 95% identical.
22. (Amended) An enzyme of claim 21, wherein the isolated enzyme is microbial.
23. (Amended) The method of claim 18, wherein the amino acid sequence of the isolated enzyme is at least 80% identical.
24. (Amended) The method of claim 18, wherein the amino acid sequence of the isolated enzyme is at least 90% identical.
25. (Amended) The method of claim 18, wherein the amino acid sequence of the isolated enzyme is at least 95% identical.
26. (Amended) The method of claim 25, wherein the isolated enzyme is microbial.
27. (Amended) The method of claim 25, wherein the isolated enzyme converts about 400 μ moles of α -keto acid per minute per mg of the enzyme.

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Please enter the following new claims:

Sub F3
C9
28. (New) The isolated enzyme of claim 17, wherein the amino acid sequence of the isolated enzyme has the same amino group acceptor and amino group donor specificity as the enzyme to which it is at least 70% identical.

F
29. (New) The method of claim 18, wherein the amino acid sequence of the isolated enzyme has the same amino group acceptor and amino group donor specificity as the enzyme to which it is at least 70% identical.